Mr. Ray Doss
Front Line Manufacturing
County Road 2466, North 200 West
Warsaw, Indiana 46538

Re: Significant Source Modification No:
T085-10774-00077

Dear Mr. Doss:

Front Line Manufacturing applied for a Part 70 operating permit on March 19, 1999 for a shower tub and sink manufacturing operation. An application to modify the source was received on March 19, 1999. Pursuant to 326 IAC 2-7-10.5 the following emission units are approved for construction at the source:

(a) two (2) gel spray guns, identified as (SG5 and SG6), each with a maximum capacity of 210.7 pounds of coating per hour, using dry filters as particulate control, and exhausting to two (2) stacks identified as SG5 and SG6, respectively;
(b) three (3) chop spray guns, identified as (SG7, SG8 and SG9), each with a maximum capacity of 797.3 pounds of coating per hour, using dry filters as particulate control, and exhausting to three (3) stacks identified as SG7, SG8 and SG9, respectively;
(c) fifteen (15) trimmer saws, identified as (T2A-T2N and T20), with a maximum capacity of 2,040 pounds of reinforced polyester plastic per hour, using a dust collection system as particulate control, and exhausting to the interior of the building;
(d) one (1) air makeup unit with a rated heat input of 2.75 million British thermal units (mmBtu) per hour; and
(e) Cleaners and solvents characterized as follows:
    (1) having a vapor pressure equal to or less than 2 kPa; 15mm Hg; or 0.3 psi measured at 38 degrees C (100^{o}F) or;
    (2) having a vapor pressure equal to or less than 0.7 kPa; 5mm Hg; or 0.1 psi measured at 20^{o}C (68^{o}F);
    the use of which for all cleaners and solvents combined does not exceed 145 gallons per 12 months.

The proposed Significant Source Modification approval will be incorporated into the pending Part 70 permit application pursuant to 326 IAC 2-7-10.5(l)(3). If there are no changes to the proposed construction of the emission units, the source may begin operating on the date that IDEM receives an affidavit of construction pursuant to 326 IAC 2-7-10.5(h). If there are any changes to the proposed construction the source can not operate until an Operation Permit Validation Letter is issued.

This decision is subject to the Indiana Administrative Orders and Procedures Act - IC 4-21.5-3-5. If you have any questions on this matter call (800) 451-6027, press 0 and ask for extension 3-6878, or dial (973)-575-2555 ext. 3241.

Sincerely,

Paul Dubenetzky, Chief
Permits Branch
Office of Air Management

Attachments
PR
cc: File - Kosciusko County
U.S. EPA, Region V
Kosciusko County Health Department
Air Compliance Section Inspector Doyle Houser
Compliance Data Section - Jerri Curless
Administrative and Development - Janet Mobley
Technical Support and Modeling - Nancy Landau

PART 70 SIGNIFICANT SOURCE MODIFICATION
OFFICE OF AIR MANAGEMENT

Front Line Manufacturing
County Road 2466, North 200 West
Warsaw, Indiana 46538

(herein known as the Permittee) is hereby authorized to construct and operate subject to the conditions contained herein, the emission units described in Section A (Source Summary) of this approval.

This approval is issued in accordance with 326 IAC 2 and 40 CFR Part 70 Appendix A and contains the conditions and provisions specified in 326 IAC 2-7 as required by 42 U.S.C. 7401, et. seq. (Clean Air Act as amended by the 1990 Clean Air Act Amendments), 40 CFR Part 70.6, IC 13-15 and IC 13-17.

Source Modification No.: SSM 085-10774-00077	
Issued by: Paul Dubenetzky, Branch Chief Office of Air Management	Issuance Date:

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SECTION A SOURCE SUMMARY

This approval is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Management (OAM). The information describing the emission units contained in conditions A.1 through A.2 is descriptive information and does not constitute enforceable conditions. However, the Permittee should be aware that a physical change or a change in the method of operation that may render this descriptive information obsolete or inaccurate may trigger requirements for the Permittee to obtain additional permits or seek modification of this approval pursuant to 326 IAC 2, or change other applicable requirements presented in the permit application.

A.1 General Information [326 IAC 2-7-4(c)] [326 IAC 2-7-5(15)]

The Permittee owns and operates a stationary shower tub and sink manufacturing operation.

Responsible Official:	Ray Doss
Source Address:	County Road 2466, North 200 West, Warsaw, Indiana 46538
Mailing Address:	P.O. Box 176, Leesburg, Indiana 46538
Phone Number:	219-269-1794
SIC Code:	3714
County Location:	Kosciusko
County Status:	Attainment for all criteria pollutants
Source Status:	Part 70 Permit Program Minor Source, under PSD Rules; Major Source, Section 112 of the Clean Air Act

A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-7-4(c)(3)] [326 IAC 2-7-5(15)]

This stationary source consists of the following emission units and pollution control devices:

(a) two (2) gel spray guns, identified as (SG5 and SG6), each with a maximum capacity of 210.7 pounds of coating per hour, using dry filters as particulate control, and exhausting to two (2) stacks identified as SG5 and SG6, respectively;

(b) three (3) chop spray guns, identified as (SG7, SG8 and SG9), each with a maximum capacity of 797.3 pounds of coating per hour, using dry filters as particulate control, and exhausting to three (3) stacks identified as SG7, SG8 and SG9, respectively;

(c) fifteen (15) trimmer saws, identified as (T2A-T2N and T20), with a maximum capacity of 2,040 pounds of reinforced polyester plastic per hour, using a dust collection system as particulate control, and exhausting to the interior of the building;

A.3 Part 70 Permit Applicability [326 IAC 2-7-2]

This stationary source is required to have a Part 70 permit by 326 IAC 2-7-2 (Applicability) because:

(a) It is a major source, as defined in 326 IAC 2-7-1(22);

(b) It is an affected source under Title IV (Acid Deposition Control) of the Clean Air Act, as defined in 326 IAC 2-7-1(3);

(c) It is a source in a source category designated by the United States Environmental Protection Agency (U.S. EPA) under 40 CFR 70.3 (Part 70 - Applicability).

SECTION B GENERAL CONSTRUCTION CONDITIONS

B.1 Permit No Defense [IC 13]

This approval to construct does not relieve the Permittee of the responsibility to comply with the provisions of the Indiana Environmental Management Law (IC 13-11 through 13-20; 13-22 through 13-25; and 13-30), the Air Pollution Control Law (IC 13-17) and the rules promulgated thereunder, as well as other applicable local, state, and federal requirements.

B.2 Definitions [326 IAC 2-7-1]

Terms in this approval shall have the definition assigned to such terms in the referenced regulation. In the absence of definitions in the referenced regulation, any applicable definitions found in IC 13-11, 326 IAC 1-2 and 326 IAC 2-7 shall prevail.

B.3 Effective Date of the Permit [IC13-15-5-3]

Pursuant to IC 13-15-5-3, this approval becomes effective upon its issuance.

B.4 Revocation of Permits [326 IAC 2-1.1-9(5)][326 IAC 2-7-10.5(i)]

Pursuant to 326 IAC 2-1.1-9(5)(Revocation of Permits), the Commissioner may revoke this approval if construction is not commenced within eighteen (18) months after receipt of this approval or if construction is suspended for a continuous period of one (1) year or more.

B.5 Significant Source Modification [326 IAC 2-7-10.5(h)] [326 IAC 2-7-2(d)]

This document shall also become the approval to operate pursuant to 326 IAC 2-7-10.5(h) when, prior to start of operation, the following requirements are met:

(a) The attached affidavit of construction shall be submitted to the Office of Air Management (OAM), Permit Administration & Development Section, verifying that the emission units were constructed as proposed in the application. The emissions units covered in the Significant Source Modification approval may begin operating on the date the affidavit of construction is postmarked or hand delivered to IDEM if constructed as proposed.

(b) If actual construction of the emissions units differs from the construction proposed in the application, the source may not begin operation until the source modification has been revised pursuant to 326 IAC 2-7-11 or 326 IAC 2-7-12 and an Operation Permit Validation Letter is issued.

(c) If construction is completed in phases; i.e., the entire construction is not done continuously, a separate affidavit must be submitted for each phase of construction. Any permit conditions associated with operation start up dates such as stack testing for New Source Performance Standards (NSPS) shall be applicable to each individual phase.

(d) The Permittee shall receive an Operation Permit Validation Letter from the Chief of the Permit Administration & Development Section and attach it to this document.

However, in the event that the Title V application is being processed at the same time as this application, the following additional procedures shall be followed for obtaining the right to operate:

(a) If the Title V draft permit has not gone on public notice, then the change/addition covered by the Significant Source Modification (SSM) will be included in the Title V draft.

(b) If the Title V permit has gone thru final EPA proposal and would be issued ahead of the SSM, then the SSM will go thru a concurrent 45 day EPA review. Then the SSM will be incorporated into the final Title V permit at the time of issuance.

(c) If the Title V permit has not gone thru final EPA review and would be issued after the SSM is issued, then the SSM would be added to the proposed Title V permit, and the Title V permit will be issued after EPA review.

SECTION C GENERAL OPERATION CONDITIONS

C.1 Certification [326 IAC 2-7-4(f)] [326 IAC 2-7-6(1)]

(a) Where specifically designated by this approval or required by an applicable requirement, any application form, report, or compliance certification submitted under this approval shall contain certification by a responsible official of truth, accuracy, and completeness. This certification, and any other certification required under this approval, shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

(b) One (1) certification shall be included, on the attached Certification Form, with each submittal.

(c) A responsible official is defined at 326 IAC 2-7-1(34).

C.2 Preventive Maintenance Plan [326 IAC 2-7-5(1),(3) and (13)] [326 IAC 2-7-6(1) and (6)] [326 IAC 1-6-3]

(a) If required by specific condition(s) in Section D of this approval, the Permittee shall prepare and maintain Preventive Maintenance Plans (PMP) within ninety (90) days after issuance of this approval, including the following information on each facility:

(1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;

(2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions;

(3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.

If due to circumstances beyond its control, the PMP cannot be prepared and maintained within the above time frame, the Permittee may extend the date an additional ninety (90) days provided the Permittee notifies:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Management
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

(b) The Permittee shall implement the Preventive Maintenance Plans as necessary to ensure that lack of proper maintenance does not cause or contribute to a violation of any limitation on emissions or potential to emit.

(c) PMP's shall be submitted to IDEM, OAM, upon request and shall be subject to review and approval by IDEM, OAM.

C.3 Permit Amendment or Modification [326 IAC 2-7-11] [326 IAC 2-7-12]

(a) The Permittee must comply with the requirements of 326 IAC 2-7-11 or 326 IAC 2-7-12 whenever the Permittee seeks to amend or modify this approval.

(b) Any application requesting an amendment or modification of this approval shall be submitted to:

Indiana Department of Environmental Management
Permits Branch, Office of Air Management
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

Any such application should be certified by the "responsible official" as defined by 326 IAC 2-7-1(34) only if a certification is required by the terms of the applicable rule

(c) The Permittee may implement administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-7-11(c)(3)]

C.4 Opacity [326 IAC 5-1]

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Exemptions), opacity shall meet the following, unless otherwise stated in this approval:

(a) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.

(b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings) as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

C.5 Operation of Equipment [326 IAC 2-7-6(6)]

All air pollution control equipment listed in this approval and used to comply with an applicable requirement shall be operated at all times that the emission units vented to the control equipment are in operation.

C.6 Stack Height [326 IAC 1-7]

The Permittee shall comply with the applicable provisions of 326 IAC 1-7 (Stack Height Provisions), for all exhaust stacks through which a potential (before controls) of twenty-five (25) tons per year or more of particulate matter or sulfur dioxide is emitted by using ambient air quality modeling pursuant to 326 IAC 1-7-4.

Testing Requirements [326 IAC 2-7-6(1)]

C.7 Performance Testing [326 IAC 3-6]

(a) All testing shall be performed according to the provisions of 326 IAC 3-6 (Source Sampling Procedures), except as provided elsewhere in this approval, utilizing methods approved by IDEM, OAM.

A test protocol, except as provided elsewhere in this approval, shall be submitted to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Management
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

no later than thirty-five (35) days prior to the intended test date. The Permittee shall submit a notice of the actual test date to the above address so that it is received at least two weeks prior to the test date.

(b) All test reports must be received by IDEM, OAM within forty-five (45) days after the completion of the testing. An extension may be granted by the Commissioner, if the source submits to IDEM, OAM, a reasonable written explanation within five (5) days prior to the end of the initial forty-five (45) day period.

The documentation submitted by the Permittee does not require certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

Compliance Monitoring Requirements [326 IAC 2-7-5(1)] [326 IAC 2-7-6(1)]

C.8 Compliance Monitoring [326 IAC 2-7-5(3)] [326 IAC 2-7-6(1)]

Compliance with applicable requirements shall be documented as required by this approval. The Permittee shall be responsible for installing any necessary equipment and initiating any required monitoring related to that equipment, no more than ninety (90) days after receipt of this approval. If due to circumstances beyond its control, this schedule cannot be met, the Permittee may extend the compliance schedule an additional ninety (90) days provided the Permittee notifies:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Management
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

in writing, prior to the end of the initial ninety (90) day compliance schedule, with full justification of the reasons for the inability to meet this date.

The notification which shall be submitted by the Permittee does require the certification by the “responsible official” as defined by 326 IAC 2-7-1(34).

C.9 Maintenance of Monitoring Equipment [326 IAC 2-7-5(3)(A)(iii)]

(a) In the event that a breakdown of the monitoring equipment occurs, a record shall be made of the times and reasons of the breakdown and efforts made to correct the problem. To the extent practicable, supplemental or intermittent monitoring of the parameter should be implemented at intervals no less frequent than required in Section D of this approval until such time as the monitoring equipment is back in operation. In the case of continuous monitoring, supplemental or intermittent monitoring of the parameter should be implemented at intervals no less than one (1) hour until such time as the continuous monitor is back in operation.

(b) The Permittee shall install, calibrate, quality assure, maintain, and operate all necessary monitors and related equipment. In addition, prompt corrective action shall be initiated whenever indicated.

Corrective Actions and Response Steps [326 IAC 2-7-5] [326 IAC 2-7-6]

C.10 Compliance Monitoring Plan - Failure to Take Response Steps [326 IAC 2-7-5][326 IAC 2-7-6] [326 IAC 1-6]

(a) The Permittee is required to implement a compliance monitoring plan to ensure that reasonable information is available to evaluate its continuous compliance with applicable requirements. This compliance monitoring plan is comprised of:

(1) This condition;

(2) The Compliance Determination Requirements in Section D of this approval;

(3) The Compliance Monitoring Requirements in Section D of this approval;

(4) The Record Keeping and Reporting Requirements in Section C (Monitoring Data Availability, General Record Keeping Requirements, and General Reporting Requirements) and in Section D of this approval; and

(5) A Compliance Response Plan (CRP) for each compliance monitoring condition of this approval. CRP's shall be submitted to IDEM, OAM upon request and shall be subject to review and approval by IDEM, OAM. The CRP shall be prepared within ninety (90) days after issuance of this approval by the Permittee and maintained on site, and is comprised of:

(A) Response steps that will be implemented in the event that compliance related information indicates that a response step is needed pursuant to the requirements of Section D of this approval; and

(B) A time schedule for taking such response steps including a schedule for devising additional response steps for situations that may not have been predicted.

(b) For each compliance monitoring condition of this approval, appropriate response steps shall be taken when indicated by the provisions of that compliance monitoring condition. Failure to perform the actions detailed in the compliance monitoring conditions or failure to take the response steps within the time prescribed in the Compliance Response Plan, shall constitute a violation of the approval unless taking the response steps set forth in the Compliance Response Plan would be unreasonable.

(c) After investigating the reason for the excursion, the Permittee is excused from taking further response steps for any of the following reasons:

(1) The monitoring equipment malfunctioned, giving a false reading. This shall be an excuse from taking further response steps providing that prompt action was taken to correct the monitoring equipment.

(2) The Permittee has determined that the compliance monitoring parameters established in the approval conditions are technically inappropriate, has previously submitted a request for an administrative amendment to the approval, and such request has not been denied or;

(3) An automatic measurement was taken when the process was not operating; or

(4) The process has already returned to operating within "normal" parameters and no response steps are required.

(d) Records shall be kept of all instances in which the compliance related information was not met and of all response steps taken. In the event of an emergency, the provisions of 326 IAC 2-7-16 (Emergency Provisions) requiring prompt corrective action to mitigate emissions shall prevail.

C.11 Actions Related to Noncompliance Demonstrated by a Stack Test [326 IAC 2-7-5] [326 IAC 2-7-6]

(a) When the results of a stack test performed in conformance with Section C - Performance Testing, of this approval exceed the level specified in any condition of this approval, the Permittee shall take appropriate corrective actions. The Permittee shall submit a description of these corrective actions to IDEM, OAM, within thirty (30) days of receipt of the test results. The Permittee shall take appropriate action to minimize emissions from the affected facility while the corrective actions are being implemented. IDEM, OAM shall notify the Permittee within thirty (30) days, if the corrective actions taken are deficient. The Permittee shall submit a description of additional corrective actions taken to IDEM, OAM within thirty (30) days of receipt of the notice of deficiency. IDEM, OAM reserves the authority to use enforcement activities to resolve noncompliant stack tests.

(b) A retest to demonstrate compliance shall be performed within one hundred twenty (120) days of receipt of the original test results. Should the Permittee demonstrate to IDEM, OAM that retesting in one-hundred and twenty (120) days is not practicable, IDEM, OAM may extend the retesting deadline. Failure of the second test to demonstrate compliance with the appropriate approval conditions may be grounds for immediate revocation of the approval to operate the affected facility.

The documents submitted pursuant to this condition do not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

C.12 Malfunctions Report [326 IAC 1-6-2]

Pursuant to 326 IAC 1-6-2 (Records; Notice of Malfunction):

(a) A record of all malfunctions, including startups or shutdowns of any facility or emission control equipment, which result in violations of applicable air pollution control regulations or applicable emission limitations shall be kept and retained for a period of three (3) years and shall be made available to the Indiana Department of Environmental Management (IDEM), Office of Air Management (OAM) or appointed representative upon request.

(b) When a malfunction of any facility or emission control equipment occurs which lasts more than one (1) hour, said condition shall be reported to OAM, using the Malfunction Report Forms (2 pages). Notification shall be made by telephone or facsimile, as soon as practicable, but in no event later than four (4) daytime business hours after the beginning of said occurrence.

(c) Failure to report a malfunction of any emission control equipment shall constitute a violation of 326 IAC 1-6, and any other applicable rules. Information of the scope and expected duration of the malfunction shall be provided, including the items specified in 326 IAC 1-6-2(a)(1) through (6).

(d) Malfunction is defined as any sudden, unavoidable failure of any air pollution control equipment, process, or combustion or process equipment to operate in a normal and usual manner. [326 IAC 1-2-39]

C.13 Annual Emission Statement [326 IAC 2-6]

(a) The Permittee shall submit an annual emission statement certified pursuant to the requirements of 326 IAC 2-6, that must be received by July 1 of each year and must comply with the minimum requirements specified in 326 IAC 2-6-4. The annual emission statement shall meet the following requirements:

(1) Indicate actual emissions of criteria pollutants from the source, in compliance with 326 IAC 2-6 (Emission Reporting);

(2) Indicate actual emissions of other regulated pollutants from the source, for purposes of Part 70 fee assessment.

(b) The annual emission statement covers the twelve (12) consecutive month time period starting January 1 and ending December 31. The annual emission statement must be submitted to:

Indiana Department of Environmental Management
Technical Support and Modeling Section, Office of Air Management
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

(c) The annual emission statement required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAM, on or before the date it is due.

The submittal by the Permittee does require the certification by the “authorized individual” as defined by 326 IAC 2-1.1-1.

C.14 Monitoring Data Availability [326 IAC 2-7-6(1)] [326 IAC 2-7-5(3)]

(a) With the exception of performance tests conducted in accordance with Section C-Performance Testing, all observations, sampling, maintenance procedures, and record keeping, required as a condition of this approval shall be performed at all times the equipment is operating at normal representative conditions.

(b) As an alternative to the observations, sampling, maintenance procedures, and record keeping of subsection (a) above, when the equipment listed in Section D of this approval is not operating, the Permittee shall either record the fact that the equipment is shut down or perform the observations, sampling, maintenance procedures, and record keeping that would otherwise be required by this approval.

(c) If the equipment is operating but abnormal conditions prevail, additional observations and sampling should be taken with a record made of the nature of the abnormality.

(d) If for reasons beyond its control, the operator fails to make required observations, sampling, maintenance procedures, or record keeping, reasons for this must be recorded.

(e) At its discretion, IDEM may excuse such failure providing adequate justification is documented and such failures do not exceed five percent (5%) of the operating time in any quarter.

(f) Temporary, unscheduled unavailability of staff qualified to perform the required observations, sampling, maintenance procedures, or record keeping shall be considered a valid reason for failure to perform the requirements stated in (a) above.

C.15 General Record Keeping Requirements [326 IAC 2-7-5(3)][326 IAC 2-7-6]

(a) Records of all required monitoring data and support information shall be retained for a period of at least five (5) years from the date of monitoring sample, measurement, report, or application. These records shall be kept at the source location for a minimum of three (3) years and available upon the request of an IDEM, OAM, representative. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner makes a written request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.

(b) Records of required monitoring information shall include, where applicable:

(1) The date, place, and time of sampling or measurements;

(2) The dates analyses were performed;

(3) The company or entity performing the analyses;

(4) The analytic techniques or methods used;

(5) The results of such analyses; and

(6) The operating conditions existing at the time of sampling or measurement.

(c) Support information shall include, where applicable:

(1) Copies of all reports required by this approval;

(2) All original strip chart recordings for continuous monitoring instrumentation;

(3) All calibration and maintenance records;

(4) Records of preventive maintenance shall be sufficient to demonstrate that improper maintenance did not cause or contribute to a violation of any limitation on emissions or potential to emit. To be relied upon subsequent to any such violation, these records may include, but are not limited to: work orders, parts inventories, and operator's standard operating procedures. Records of response steps taken shall indicate whether the response steps were performed in accordance with the Compliance Response Plan required by Section C - Compliance Monitoring Plan - Failure to take Response Steps, of this approval, and whether a deviation from a approval condition was reported. All records shall briefly describe what maintenance and response steps were taken and indicate who performed the tasks.

(d) All record keeping requirements not already legally required shall be implemented within ninety (90) days of approval issuance.

C.16 General Reporting Requirements [326 IAC 2-7-5(3)(C)]

(a) The reports required by conditions in Section D of this approval shall be submitted to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Management
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

(b) Unless otherwise specified in this approval, any notice, report, or other submission required by this approval shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAM, on or before the date it is due.

(c) Unless otherwise specified in this approval, any quarterly report shall be submitted within thirty (30) days of the end of the reporting period. The reports do not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

(d) The first report shall cover the period commencing on the date of issuance of this approval and ending on the last day of the reporting period.

SECTION D.1 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]
(a) two (2) gel spray guns, identified as (SG5 and SG6), each with a maximum capacity of 210.7 pounds of coating per hour, using dry filters as particulate control, and exhausting to two (2) identified as stacks SG5 and SG6, respectively; and
(b) three (3) chop spray guns, identified as (SG7, SG8 and SG9), each with a maximum capacity of 797.3 pounds of coating per hour, using dry filters as particulate control, and exhausting to three (3) stacks identified as SG7, SG8 and SG9, respectively.

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.1.1 New Source Toxics Control [326 IAC 2-4.1-1]

Pursuant to the MACT determination under 326 IAC 2-4.1-1, operating conditions for the two (2) gel spray guns, identified as (SG5 and SG6) and three (3) chop spray guns, identified as (SG7, SG8 and SG9) shall be the following:

(a) Use of resins and gel coats shall be limited such that the potential to emit (PTE) volatile organic HAP from resins and gel coats only shall be less than 100 tons, per twelve (12) consecutive months. Compliance with this limit shall be determined based upon the following criteria:

(1) Monthly usage by weight, monomer content, method of application, and other emission reduction techniques for each gel coat and resin shall be recorded. Volatile organic HAP emissions shall be calculated by multiplying the usage of each gel coat and resin by the emission factor that is appropriate for the monomer content, method of application, and other emission reduction techniques for each gel coat and resin, and summing the emissions for all gel coats and resins. Emission factors shall be obtained from the reference approved by IDEM, OAM.

(2) Until such time that new emissions information is made available by U.S. EPA in its AP-42 document or other U.S. EPA- approved form, emission factors shall be taken from the following reference approved by IDEM, OAM: "CFA Emission Models for the Reinforced Plastics Industries," Composites Fabricators Association, February 28, 1998, and shall not exceed 32.3% styrene emitted per weight of gel coat applied and 17.7% styrene emitted per weight of resin applied. For the purposes of these emission calculations, monomer in resins and gel coats that is not styrene shall be considered as styrene on an equivalent weight basis.

(b) Resins and gel coats used, including filled resins and tooling resins and gel coats, shall be limited to maximum monomer contents of 35 percent (35%) by weight for resins, 37 percent (37%) by weight for gel coats or their equivalent on an emissions mass basis. Monomer contents shall be calculated on a neat basis, i.e., excluding any filler. Compliance with these monomer content limits shall be demonstrated on a monthly basis.

The use of resins with monomer contents lower than 35%, gel coats with monomer contents lower than 37%, and/or additional emission reduction techniques approved by IDEM, OAM, may be used to offset the use of resins with monomer contents higher than 35%, and/or gel coats with monomer contents higher than 37%. Examples of other techniques include, but are not limited to, lower monomer content resins and gel coats, closed molding, vapor suppression, vacuum bagging, controlled spraying, or installing a control device with an overall reduction efficiency of 95%. This is allowed to meet the monomer content limits for resins and gel coats, and shall be calculated on an equivalent emissions mass basis as shown below:

(Emissions from >35% resin or >37% gel coat) - (Emissions from 35% resin or 37% gel coat) $\leq$ (Emissions from 35% resin or 37% gel coat) - (Emissions from <35% resin, <37% gel coat, and or other emission reduction techniques).

Where: Emissions, lb or ton = M (mass of resin or gel coat used, lb or ton) * EF (Monomer emission factor for resin or gel cat used, %):

EF, Monomer emission factor = emission factor, expressed as % styrene emitted per weight of resin applied, which is indicated by the monomer content, method of application, and other emission reduction techniques for each gel coat and resin used.

(c) Flow coaters, a type of non-spray application technology of a design and specifications to be approved by IDEM, OAM, shall be used in the following manner:

(1) to apply 50% of all neat resins within 6 months of commencement of operation.

(2) to apply 100% of all neat resins used within 1 year of commencement of operation.

If, after 1 year of operation it is not possible to apply a portion of neat resins with flow coaters, equivalent emissions reductions must be obtained via use of other techniques, such as those listed in Condition D.1.1(b) above, elsewhere in the process.

(d) Optimized spray techniques according to a manner approved by IDEM shall be used for gel coats and filled resins (where fillers are required for corrosion or fire retardant purposes) at all times.

Optimized spray techniques include, but are not limited to, the use of airless, air-assisted airless, high volume low pressure (HVLP), or other spray applicators demonstrated to the satisfaction of IDEM, OAM, to be equivalent to the spray applicators listed above.

HVLP spray is the technology used to apply material to substrate by means of coating application equipment that operates between one-tenth (0.1) and ten (10) pounds per square inch gauge (psig) air pressure measured dynamically at the center of the air cap and at the air horns of the spray system.

(e) The listed work practices shall be followed:

(1) To the extent possible, a non-VOC, non-HAP solvent shall be used for cleanup.

(2) Cleanup solvent containers used to transport solvent from drums to work stations shall be closed containers having soft gasketed spring-loaded closures.

(3) Cleanup rags saturated with solvent shall be stored, transported, and disposed of in containers that are closed tightly.

(4) The spray guns used shall be the type that can be cleaned without the need for spraying the solvent into the air.

(5) All solvent sprayed during cleanup or resin changes shall be directed into containers, such containers shall be closed as soon as solvent spraying is complete and the waste solvent shall be disposed of in such a manner that evaporation is minimized.

(6) Storage containers used to store VOC- and/or HAP- containing materials shall be kept covered when not in use.

D.1.2 Volatile Organic Compounds (VOC) [326 IAC 8-1-6] [326 IAC 2-2] [40 CFR 52.21]

Pursuant to 326 IAC 8-1-6 the gel and chop spray guns (ID SG5-SG9) are subject to the requirements of 326 IAC 8-1-6, which requires that the Best Available Control Technology (BACT) be used to control VOC emissions. BACT for the gel and chop spray guns (ID SG5-SG9) shall be satisfied by the requirements of 326 IAC 2-4.1-1 (New Source Toxics Control) specified in Condition D.1.1. Compliance with this condition and Condition D.1.1 shall make the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration) and 40 CFR 52.21 not applicable to this source.

D.1.3 Particulate Matter (PM) [326 IAC 6-3-2(c)]

Pursuant to 326 IAC 6-3 (Process Operations), the allowable PM emission rates are as follows:

Emission Unit	Process Weight Rate (tons/hr)	Allowable PM Emissions (326 IAC 6-3-2) (lb/hr)
gel spray gun ID SG5	0.11	0.93
gel spray gun ID SG6	0.11	0.93
gel spray gun ID SG7	0.40	2.22
gel spray gun ID SG8	0.40	2.22
gel spray gun ID SG9	0.40	2.22

The pounds per hour limitation was calculated with the following equation:

Interpolation and extrapolation of the data for the process weight rate up to 60,000 pounds per hour shall be accomplished by use of the equation:

$E = 4.10\ P^{0.67}$ where E = rate of emission in pounds per hour; and
P = process weight rate in tons per hour

D.1.4 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for these facilities and any control devices.

Compliance Determination Requirements

D.1.5 Testing Requirements [326 IAC 2-7-6(1),(6)][326 IAC 2-1.1-11]

The Permittee is not required to test these facilities by this permit. However, IDEM may require compliance testing when necessary to determine if the facilities are in compliance. If testing is required by IDEM compliance with the VOC limit specified in Condition D.1.1 and the HAP limit specified in condition D.1.2 shall be determined by a performance test conducted in accordance with Section C - Performance Testing.

D.1.6 Volatile Organic Compounds (VOC)

Compliance with the VOC content and usage limitation contained in Condition D.1.1 and the monomer content and usage limitations contained in Conditions D.1.2 shall be determined pursuant to 326 IAC 8-1-4(a)(3) and 326 IAC 8-1-2(a) using formulation data supplied by the manufacturer. IDEM, OAM, reserves the authority to determine compliance using Method 24 in conjunction with the analytical procedures specified in 326 IAC 8-1-4.

D.1.7 VOC and HAP Emissions

Compliance with Conditions D.1.1 and D.1.2 shall be demonstrated within 30 days of the end of each month based on the total volatile organic compound usage for the most recent twelve (12) month period.

D.1.8 Particulate Matter (PM)

The dry filters for PM control shall be in operation at all times when the gel and chop spray guns (ID SG5-SG9) are in operation.

Compliance Monitoring Requirements [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

D.1.9 Monitoring

(a) Daily inspections shall be performed to verify the placement, integrity and particle loading of the filters. To monitor the performance of the dry filters, weekly observations shall be made of the overspray from the gel and chop spray gun stacks (ID SG5X-SG9X) while one or more of the guns are in operation. The Compliance Response Plan shall be followed whenever a condition exists which should result in a response step. Failure to take response steps in accordance with Section C - Compliance Monitoring Plan - Failure to Take Response Steps, shall be considered a violation of this permit.

(b) Monthly inspections shall be performed of the coating emissions from the stack and the presence of overspray on the rooftops and the nearby ground. The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when a noticeable change in overspray emission, or evidence of overspray emission is observed.

The Compliance Response Plan shall be followed whenever a condition exists which should result in a response step. Failure to take response steps in accordance with Section C - Compliance Monitoring Plan - Failure to Take Response Steps, shall be considered a violation of this permit.

(c) Additional inspections and preventive measures shall be performed as prescribed in the Preventive Maintenance Plan.

D.1.10 Visible Emissions Notations

(a) Daily visible emission notations of the gel and chop spray gun stacks (ID SG5X-SG9X) exhaust shall be performed during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.

(b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.

(c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.

(d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.

(e) The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed.

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

D.1.11 Record Keeping Requirements

(a) To document compliance with Conditions D.1.1 and D.1.2, the Permittee shall maintain records in accordance with (1) through (4) below. Records maintained for (1) through (4) shall be taken monthly and shall be complete and sufficient to establish compliance with the VOC usage limits and/or the volatile organic HAP emission limits established in Conditions D.1.1 and D.1.2.

(1) The usage by weight and monomer content of each resin and gel coat. Records shall include purchase orders, invoices, and material safety data sheets (MSDS) necessary to verify the type and amount used;

(2) A log of the dates of use;

(3) Method of application and other emission reduction techniques for each resin and gel coat used;

(4) The calculated total volatile organic HAP emissions from resin and gel coat use for each month. The total volatile organic HAP emissions recorded each month shall reflect the total VOC use for that month.

(b) To document compliance with Conditions D.1.8 and D.1.9, the Permittee shall maintain a log of weekly overspray observations, daily and monthly inspections, and those additional inspections prescribed by the Preventive Maintenance Plan.

(b) To document compliance with Condition D.1.10, the Permittee shall maintain records of daily visible emission notations of the gel and chop spray gun stacks (ID SG5X-SG9X) exhaust.

(c) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.1.12 Reporting Requirements

A quarterly summary of the information to document compliance with Conditions D.1.1 and D.1.2 shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported.

SECTION D.2 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]
(a) fifteen (15) trimmer saws, identified as (T2A-T2N and T20), with a total maximum capacity of 2,040 pounds of reinforced polyester plastic per hour, all using a single dust collection system for particulate control, and exhausting to the interior of the building.

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.2.1 Particulate Matter (PM) [326 IAC 6-3]

Pursuant to 326 IAC 6-3 (Process Operations), the total allowable PM emission rate from all of the trimming facilities shall not exceed 4.15 pounds per hour when operating at a process weight rate of 2,040 pounds per hour (equivalent to 1.02 tons per hour).

The pounds per hour limitation was calculated with the following equation:

Interpolation and extrapolation of the data for the process weight rate up to 60,000 pounds per hour shall be accomplished by use of the equation:

$E = 4.10\ P^{0.67}$ where E = rate of emission in pounds per hour; and P = process weight rate in tons per hour

Compliance Determination Requirements

D.2.2 Testing Requirements [326 IAC 2-7-6(1),(6)][326 IAC 2-1.1-11]

The Permittee is not required to test this facility by this permit. However, IDEM may require compliance testing when necessary to determine if the facility is in compliance. If testing is required by IDEM, compliance with the PM limit specified in Condition D.2.1 shall be determined by a performance test conducted in accordance with Section C - Performance Testing.

Compliance Monitoring Requirements [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

There are no Compliance Monitoring Requirements for these facilities.

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

There are no Record Keeping and Reporting Requirements for these facilities.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR MANAGEMENT
COMPLIANCE DATA SECTION

PART 70 SOURCE MODIFICATION CERTIFICATION

Source Name: Front Line Manufacturing
Source Address: County Road 2466, North 200 West, Warsaw, Indiana 46538
Mailing Address: P.O. Box 176, Leesburg, Indiana 46538
Source Modification No.: SSM085-10774-00077

This certification shall be included when submitting monitoring, testing reports/results or other documents as required by this approval.

Please check what document is being certified:

9 Test Result (specify) _____

9 Report (specify) _____

9 Notification (specify) _____

9 Other (specify) _____

I certify that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

Signature:

Printed Name:

Title/Position:

Date:

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR MANAGEMENT
COMPLIANCE DATA SECTION

Part 70 Source Modification Quarterly Report

Source Name: Front Line Manufacturing
Source Address: County Road 2466, North 200 West, Warsaw, Indiana 46538
Mailing Address: P.O. Box 176, Leesburg, Indiana 46538
Source Modification No.:SSM085-10774-00077
Facility: two (2) gel spray guns, identified as (SG5 and SG6) and three (3) chop spray guns, identified as (SG7, SG8 and SG9)
Parameter: volatile organic HAP
Limit: Use of resins and gel coats shall be limited such that the potential to emit (PTE) volatile organic HAP from resins and gel coats only shall be less than 100 tons, per twelve (12) consecutive months.

YEAR: _____

Month	Column 1	Column 2	Column 1 + Column 2
	This Month	Previous 11 Months	12 Month Total
Month 1			
Month 2			
Month 3			

9 No deviation occurred in this quarter.

9 Deviation/s occurred in this quarter.
Deviation has been reported on: _____

Submitted by: _____
Title / Position: _____
Signature: _____
Date: _____
Phone: _____

MALFUNCTION REPORT

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR MANAGEMENT
FAX NUMBER - (317) 233-5967

This form should only be used to report malfunctions applicable to Rule 326 IAC 1-6 and to qualify for the exemption under 326 IAC 1-6-4.

THIS FACILITY MEETS THE APPLICABILITY REQUIREMENTS BECAUSE: IT HAS POTENTIAL TO EMIT 25 LBS/HR PARTICULATES ?_____, 100 LBS/HR VOC ?_____, 100 LBS/HR SULFUR DIOXIDE ?_____ OR 2000 LBS/HR OF ANY OTHER POLLUTANT ?_____ EMISSIONS FROM MALFUNCTIONING CONTROL EQUIPMENT OR PROCESS EQUIPMENT CAUSED EMISSIONS IN EXCESS OF APPLICABLE LIMITATION _____.

THIS MALFUNCTION RESULTED IN A VIOLATION OF: 326 IAC _____ OR, PERMIT CONDITION # _____ AND/OR PERMIT LIMIT OF _____

THIS INCIDENT MEETS THE DEFINITION OF 'MALFUNCTION' AS LISTED ON THE NEXT PAGE ? Y N

THIS MALFUNCTION IS OR WILL BE LONGER THAN THE ONE (1) HOUR REPORTING REQUIREMENT ? Y N

COMPANY:_____PHONE NO. ( )_____

LOCATION: (CITY AND COUNTY)_____

PERMIT NO. _____ AFS PLANT ID: _____ AFS POINT ID: _____ INSP: _____
CONTROL/PROCESS DEVICE WHICH MALFUNCTIONED AND REASON: _____
_____

DATE/TIME MALFUNCTION STARTED: _____/_____/ 19____ _____ AM / PM

ESTIMATED HOURS OF OPERATION WITH MALFUNCTION CONDITION: _____

DATE/TIME CONTROL EQUIPMENT BACK-IN SERVICE_____/_____/ 19____ _____ AM/PM

TYPE OF POLLUTANTS EMITTED: TSP, PM-10, SO2, VOC, OTHER: _____

ESTIMATED AMOUNT OF POLLUTANT EMITTED DURING MALFUNCTION: _____

_____

MEASURES TAKEN TO MINIMIZE EMISSIONS: _____

_____

REASONS WHY FACILITY CANNOT BE SHUTDOWN DURING REPAIRS:

CONTINUED OPERATION REQUIRED TO PROVIDE ESSENTIAL* SERVICES: _____
CONTINUED OPERATION NECESSARY TO PREVENT INJURY TO PERSONS:_____
CONTINUED OPERATION NECESSARY TO PREVENT SEVERE DAMAGE TO EQUIPMENT:_____
INTERIM CONTROL MEASURES: (IF APPLICABLE) _____
_____
_____

MALFUNCTION REPORTED BY: _____TITLE:_____
(SIGNATURE IF FAXED)

MALFUNCTION RECORDED BY: _____DATE:_____TIME:_____

Please note - This form should only be used to report malfunctions applicable to Rule 326 IAC 1-6 and to qualify for the exemption under 326 IAC 1-6-4.

326 IAC 1-6-1 Applicability of rule

Sec. 1. The requirements of this rule (326 IAC 1-6) shall apply to the owner or operator of any facility which has the potential to emit twenty-five (25) pounds per hour of particulates, one hundred (100) pounds per hour of volatile organic compounds or SO2, or two thousand (2,000) pounds per hour of any other pollutant; or to the owner or operator of any facility with emission control equipment which suffers a malfunction that causes emissions in excess of the applicable limitation.

326 IAC 1-2-39 "Malfunction" definition

Sec. 39. Any sudden, unavoidable failure of any air pollution control equipment, process, or combustion or process equipment to operate in a normal and usual manner. (Air Pollution Control Board; 326 IAC 1-2-39; filed Mar 10, 1988, 1:20 p.m. : 11 IR 2373)

***Essential services** are interpreted to mean those operations, such as, the providing of electricity by power plants. Continued operation solely for the economic benefit of the owner or operator shall not be sufficient reason why a facility cannot be shutdown during a control equipment shutdown.

If this item is checked on the front, please explain rationale:

_____

_____

Indiana Department of Environmental Management
Office of Air Management

Technical Support Document (TSD) for a Significant Source Modification to a Part 70 Operating Permit

Source Background and Description

Source Name:	**Front Line Manufacturing**
Source Location:	**County Road 2466, North 200 West, Warsaw, Indiana 46538**
County:	**Kosciusko**
SIC Code:	**3714**
Source Modification No.:	**SSM085-10774-00077**
Permit Reviewer:	**Phillip Ritz/EVP**

The Office of Air Management (OAM) has reviewed a significant source modification application from Front Line Manufacturing relating to the construction and operation of a modification to a shower tub and sink manufacturing operation.

History

On March 19, 1999, Front Line Manufacturing submitted an application to the OAM requesting to modify their existing shower tub and sink manufacturing operation. Front Line Manufacturing applied for a Part 70 Operating Permit on March 19, 1999.

New Emission Units and Pollution Control Equipment

The application includes information relating to the construction and operation of the following equipment:

(a) two (2) gel spray guns, identified as (SG5 and SG6), each with a maximum capacity of 210.7 pounds of coating per hour, using dry filters as particulate control, and exhausting to two (2) stacks identified as SG5X and SG6X, respectively;

(b) three (3) chop spray guns, identified as (SG7, SG8 and SG9), each with a maximum capacity of 797.3 pounds of coating per hour, using dry filters as particulate control, and exhausting to three (3) stacks identified as SG7X, SG8X and SG9X, respectively;

(c) fifteen (15) trimmer saws, identified as (T2A-T2N and T20), with a maximum capacity of 2,040 pounds of reinforced polyester plastic per hour, using a dust collection system as particulate control, and exhausting to the interior of the building;

(d) one (1) air makeup unit with a rated heat input of 2.75 million British thermal units (mmBtu) per hour; and

(e) Cleaners and solvents characterized as follows:
  (1) having a vapor pressure equal to or less than 2 kPa; 15mm Hg; or 0.3 psi measured at 38 degrees C (100^{o}F) or;
  (2) having a vapor pressure equal to or less than 0.7 kPa; 5mm Hg; or 0.1 psi measured at 20^{o}C (68^{o}F);

the use of which for all cleaners and solvents combined does not exceed 145 gallons per

12 months.

Paragraphs (d) and (e) are considered to be insignificant activities, as defined at 326 IAC 2-7-1(21), that are not specifically regulated. As such, and pursuant to, the Part 70 source modification requirements of 326 IAC 2-7-10.5, the installation of these activities are acknowledged through this Technical Support Document, but they are not listed in Section A..2 (Emission Units and Pollution Control Equipment Summary of the proposed Significant Source Modification No. SSM085-10774-00077.

Existing Approvals

The source applied for a Part 70 Operating Permit 085-10773-00077 on March 19, 1999. The source has been operating under previous approvals including, but not limited to, the following:

(a) CP085-8900-00077, issued on February 17, 1998.

Enforcement Issue

There are no enforcement actions pending.

Stack Summary

Stack ID	Operation	Height (feet)	Diameter (feet)	Flow Rate (acfm)	Temperature (^{0}F)
SG5X	Gel Gun	24	1.5	5,500	68
SG6X	Gel Gun	24	1.5	5,500	68
SG7X	Chop Gun	24	1.5	5,500	68
SG8X	Chop Gun	24	1.5	5,500	68
SG9X	Chop Gun	24	1.5	5,500	68
Air Makeup	Air Makeup	20	1	N/A	N/A

Recommendation

The staff recommends to the Commissioner that the Significant Source Modification be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

An application for the purposes of this review was received on March 25, 1999. Additional information was received on April 22, 1999.

Emission Calculations

See Appendix A of this document for detailed emissions calculations (Appendix A, pages 1 through 7.)

Potential To Emit

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as “the maximum capacity of a stationary source to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U. S. EPA.”

Pollutant	Potential To Emit (tons/year)
PM	470.85
PM-10	470.85
SO_2	0.01
VOC	595.85
CO	1.01
NO_x	1.20

Note: For the purpose of determining Title V applicability for particulates, PM-10, not PM, is the regulated pollutant in consideration.

HAP's	Potential To Emit (tons/year)
Styrene	580.83
MEKP	2.56
Toluene	8.39
Dimethyl Phthalate	3.14
TOTAL	594.93

(a) The potential to emit (as defined in 326 IAC 2-1.1-1(16)) of PM, PM-10 and VOC are equal to or greater than 25 tons per year. The source is subject to the provisions of 326 IAC 2-7, as discussed below, and a Part 70 Permit application was submitted on March 19, 1999. Therefore, the source is subject to the source modification provisions of 326 IAC 2-7-10.5 for this significant source modification.

(b) The potential to emit (as defined in 326 IAC 2-1.1-1(16)) of any single HAP is equal to or greater than ten (10) tons per year and the potential to emit (as defined in 326 IAC 2-7-1(29)) of a combination HAPs is greater than or equal to twenty-five (25) tons per year. The source is subject to the provisions of 326 IAC 2-7, as discussed below, and a Part 70 Permit application was submitted on March 19, 1999. Therefore, the source is subject to the source modification provisions of 326 IAC 2-7-10.5 for this significant source modification.

County Attainment Status

The source is located in Kosciusko County.

Pollutant	Status
PM-10	attainment
SO_2	attainment
NO_2	attainment
Ozone	attainment
CO	attainment
Lead	attainment

(a) Volatile organic compounds (VOC) and oxides of nitrogen (NOx) are precursors for the formation of ozone. Therefore, VOC and NO_X emissions are considered when evaluating the rule applicability relating to the ozone standards. Kosciusko County has been designated as attainment or unclassifiable for ozone.

Source Status

Existing Source PSD Definition (emissions after controls, based on 8,760 hours of operation per year at rated capacity and/ or as otherwise limited):

Pollutant	Emissions (ton/yr)
PM	0.41
PM-10	0.41
SO_2	0.00
VOC	18.09
CO	0.00
NO_x	0.00
HAP (toluene)	0.40
HAP (dimethyl phthalate)	0.09
HAP (methyl ethyl ketone)	0.18
HAP (styrene)	17.38
Total HAPs	18.05

(a) This new source is **not** a major stationary source because no attainment pollutant is emitted at a rate of 250 tons per year or greater and it is not in one of the 28 listed source categories. Therefore, pursuant to 326 IAC 2-2, and 40 CFR 52.21, the PSD requirements do not apply.

(b) These emissions were based on a source emissions summary submitted by the source on April 26, 1999.

Proposed Modification

PTE from the proposed modification (based on 8,760 hours of operation per year at rated capacity including enforceable emissions control and/or production limits, where applicable):

Pollutant	PM (ton/yr)	PM10 (ton/yr)	SO_2 (ton/yr)	VOC (ton/yr)	CO (ton/yr)	NO_x (ton/yr)
Proposed Modification	23.63	23.63	0.01	99.07	1.01	1.20
Contemporaneous Increases	0.00	0.00	0.00	0.00	0.00	0.00
Contemporaneous Decreases	0.00	0.00	0.00	0.00	0.00	0.00
Net Emissions	23.63	23.63	0.01	99.07	1.01	1.20
PSD or Offset Significant Level	250	250	250	250	250	250

(a) This modification to an existing major stationary source is not major because the emissions increase is less than the PSD significant levels. Therefore, pursuant to 326 IAC 2-2, and 40 CFR 52.21, the PSD requirements do not apply.

Part 70 Permit Determination

326 IAC 2-7 (Part 70 Permit Program)

This existing source has submitted their Part 70 (T085-10773-00077) application on March 19, 1999. The equipment being reviewed under this permit shall be incorporated in the submitted Part 70 application.

Federal Rule Applicability

(a) There are no New Source Performance Standards (NSPS)(326 IAC 12 and 40 CFR Part 60) applicable to this source.

(b) There are no National Emission Standards for Hazardous Air Pollutants (NESHAPs)(326 IAC 14 and 40 CFR Part 63) applicable to this source.

State Rule Applicability - Entire Source

326 IAC 2-2 (Prevention of Significant Deterioration)

This proposed modification is not subject to the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration). Total volatile organic HAP emissions from the two (2) gel spray guns, identified as SG5 and SG6 and three (3) chop spray guns, identified as SG7, SG8 and SG9 shall be limited to less than 100 tons per twelve (12) consecutive months. This operation limitation is equivalent to limiting VOC emissions from equipment covered under this permit to 99.07 tons per twelve (12) consecutive months. Total VOC emissions from the existing source (i.e., equipment covered under CP 085-8900-00077) are limited to 50.72 tons per twelve (12) consecutive months. The limited potential to emit VOC from the entire source, therefore, is 146.09 tons per twelve (12) consecutive months (i.e., 99.07 tons per twelve (12) consecutive months + 50.72 tons per twelve (12) consecutive months = 149.79 tons per twelve (12) consecutive months). This source is not considered as a major stationary source because it is not one of the 28 listed source categories and it does not have the potential to emit 250 tons or more of any regulated pollutant. Therefore, the Prevention of Significant Deterioration (PSD) rules, 326 IAC 2-2 and 40 CFR 52.21, will not apply.

326 IAC 2-6 (Emission Reporting)

This source is subject to 326 IAC 2-6 (Emission Reporting), because it has the potential to emit more than one hundred (100) tons per year of VOC. Pursuant to this rule, the owner/operator of the source must annually submit an emission statement for the source. The annual statement must be received by July 1 of each year and contain the minimum requirement as specified in 326 IAC 2-6-4. The submittal should cover the period defined in 326 IAC 2-6-2(8)(Emission Statement Operating Year).

326 IAC 5-1 (Visible Emissions Limitations)

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Exemptions), opacity shall meet the following, unless otherwise stated in this permit:

(a) Opacity shall not exceed an average of forty percent (40%) any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.

(b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings) as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

State Rule Applicability - Individual Facilities

326 IAC 2-4.1-1 (New Source Toxics Control)

Pursuant to the MACT determination under 326 IAC 2-4.1-1, operating conditions for the two (2) gel spray guns, identified as (SG5 and SG6) and three (3) chop spray guns, identified as (SG7, SG8 and SG9) shall be the following:

(a) Use of resins and gel coats shall be limited such that the potential to emit (PTE) volatile organic HAP from resins and gel coats only shall be less than 100 tons, per twelve (12) consecutive months. Compliance with this limit shall be determined based upon the following criteria:

(1) Monthly usage by weight, monomer content, method of application, and other emission reduction techniques for each gel coat and resin shall be recorded. Volatile organic HAP emissions shall be calculated by multiplying the usage of each gel coat and resin by the emission factor that is appropriate for the monomer content, method of application, and other emission reduction techniques for each gel coat and resin, and summing the emissions for all gel coats and resins. Emission factors shall be obtained from the reference approved by IDEM, OAM.

(2) Until such time that new emissions information is made available by U.S. EPA in its AP-42 document or other U.S. EPA- approved form, emission factors shall be taken from the following reference approved by IDEM, OAM: "CFA Emission Models for the Reinforced Plastics Industries," Composites Fabricators Association, February 28, 1998, and shall not exceed 32.3% styrene emitted per weight of gel coat applied and 17.7% styrene emitted per weight of resin applied. For the purposes of these emission calculations, monomer in resins and gel coats that is not styrene shall be considered as styrene on an equivalent weight basis.

(b) Resins and gel coats used, including filled resins and tooling resins and gel coats, shall be limited to maximum monomer contents of 35 percent (35%) by weight for resins, 37 percent (37%) by weight for gel coats or their equivalent on an emissions mass basis. Monomer contents shall be calculated on a neat basis, i.e., excluding any filler. Compliance with these monomer content limits shall be demonstrated on a monthly basis.

The use of resins with monomer contents lower than 35%, gel coats with monomer contents lower than 37%, and/or additional emission reduction techniques approved by IDEM, OAM, may be used to offset the use of resins with monomer contents higher than 35%, and/or gel coats with monomer contents higher than 37%. Examples of other techniques include, but are not limited to, lower monomer content resins and gel coats, closed molding, vapor suppression, vacuum bagging, controlled spraying, or installing a control device with an overall reduction efficiency of 95%. This is allowed to meet the monomer content limits for resins and gel coats, and shall be calculated on an equivalent emissions mass basis as shown below:

(Emissions from >35% resin or >37% gel coat) - (Emissions from 35% resin or 37% gel coat) $\leq$ (Emissions from 35% resin or 37% gel coat) - (Emissions from <35% resin, <37% gel coat, and or other emission reduction techniques).

Where: Emissions, lb or ton = M (mass of resin or gel coat used, lb or ton) * EF (Monomer emission factor for resin or gel cat used, %):

EF, Monomer emission factor = emission factor, expressed as % styrene emitted per weight of resin applied, which is indicated by the monomer content, method of application, and other emission reduction techniques for each gel coat and resin used.

(c) Flow coaters, a type of non-spray application technology of a design and specifications to be approved by IDEM, OAM, shall be used in the following manner:

(1) to apply 50% of all neat resins within 6 months of commencement of operation.

(2) to apply 100% of all neat resins used within 1 year of commencement of operation.

If, after 1 year of operation it is not possible to apply a portion of neat resins with flow coaters, equivalent emissions reductions must be obtained via use of other techniques, such as those listed in (b) above, elsewhere in the process.

(d) Optimized spray techniques according to a manner approved by IDEM shall be used for gel coats and filled resins (where fillers are required for corrosion or fire retardant purposes) at all times. Optimized spray techniques include, but are not limited to, the use of airless, air-assisted airless, high volume low pressure (HVLP), or other spray applicators demonstrated to the satisfaction of IDEM, OAM, to be equivalent to the spray applicators listed above.

HVLP spray is the technology used to apply material to substrate by means of coating application equipment that operates between one-tenth (0.1) and ten (10) pounds per square inch gauge (psig) air pressure measured dynamically at the center of the air cap and at the air horns of the spray system.

(e) The listed work practices shall be followed:

(1) To the extent possible, a non-VOC, non-HAP solvent shall be used for cleanup.

(2) Cleanup solvent containers used to transport solvent from drums to work stations shall be closed containers having soft gasketed spring-loaded closures.

(3) Cleanup rags saturated with solvent shall be stored, transported, and disposed of in containers that are closed tightly.

(4) The spray guns used shall be the type that can be cleaned without the need for spraying the solvent into the air.

(5) All solvent sprayed during cleanup or resin changes shall be directed into containers, such containers shall be closed as soon as solvent spraying is complete and the waste solvent shall be disposed of in such a manner that evaporation is minimized.

(6) Storage containers used to store VOC- and/or HAP- containing materials shall be kept covered when not in use.

326 IAC 6-3-2 (Process Operations)

Pursuant to 326 IAC 6-3-2 (Process Operations), the particulate matter (PM) from the blending operation shall be limited by the following:

Interpolation and extrapolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$E = 4.10 P^{0.67}$ where E = rate of allowable emissions in pounds per hour; and P = process weight rate in tons per hour

The allowable emissions for each facility are as follows:

Emission Unit	Process Weight Rate (tons/hr)	Uncontrolled PM Emissions (lb/hr)	Control Efficiency %	Controlled PM Emissions (lb/hr)	Allowable PM Emissions (326 IAC 6-3-2) (lb/hr)
gel spray gun ID SG5	0.11	8.96	95.00%	0.45	0.93
gel spray gun ID SG6	0.11	8.96	95.00%	0.45	0.93
gel spray gun ID SG7	0.40	28.58	95.00%	1.43	2.22
gel spray gun ID SG8	0.40	28.58	95.00%	1.43	2.22
gel spray gun ID SG9	0.40	28.58	95.00%	1.43	2.22
fifteen (15) trimmer saws, ID (T2A-T2N and T20)	1.02	3.65	95.00%	0.18	4.15

When operating with baghouses as particulate control the gel and chop spray guns (ID SG5-SG9) are in compliance with 326 IAC 6-3-2 (Process Operations), and PM emissions from the fifteen (15) trimmer saws, identified as (T2A-T2N and T20) are in compliance with 326 IAC 6-3-2. The baghouses shall be in operation at all times that the facilities are in operation.

326 IAC 8-1-6 (General Volatile Organic Compound Reduction Requirements)

This rule applies to facilities located anywhere in the state that were constructed on or after January 1, 1980, and which have potential volatile organic compound (VOC) emissions of 25 tons per year or more. Pursuant to 326 IAC 8-1-6 the gel and chop spray guns (ID SG5-SG9) are subject to the requirements of 326 IAC 8-1-6, which requires that the Best Available Control Technology (BACT) be used to control VOC emissions. BACT for the gel and chop spray guns (ID SG5-SG9) shall be satisfied by the requirements of 326 IAC 2-4.1-1 (New Source Toxics Control).

Compliance Requirements

Permits issued under 326 IAC 2-7 are required to ensure that sources can demonstrate compliance with applicable state and federal rules on a more or less continuous basis. All state and federal rules contain compliance provisions, however, these provisions do not always fulfill the requirement for a more or less continuous demonstration. When this occurs IDEM, OAM, in conjunction with the source, must develop specific conditions to satisfy 326 IAC 2-7-5. As a result, compliance requirements are divided into two sections: Compliance Determination Requirements and Compliance Monitoring Requirements.

Compliance Determination Requirements in Section D of the permit are those conditions that are found more or less directly within state and federal rules and the violation of which serves as grounds for enforcement action. If these conditions are not sufficient to demonstrate continuous compliance, they will be supplemented with Compliance Monitoring Requirements, also Section D of the permit. Unlike Compliance Determination Requirements, failure to meet Compliance Monitoring conditions would serve as a trigger for corrective actions and not grounds for enforcement action. However, a violation in relation to a compliance monitoring condition will arise through a source's failure to take the appropriate corrective actions within a specific time period.

The compliance monitoring requirements applicable to this source are as follows:

(a) The two (2) gel spray guns, identified as (SG5 and SG6) and three (3) chop spray guns, identified as (SG7, SG8 and SG9) have applicable compliance monitoring conditions as specified below:

(1) Daily inspections shall be performed to verify the placement, integrity and particle loading of the filters. To monitor the performance of the dry filters, weekly observations shall be made of the overspray from the gel and chop spray gun stacks (ID SG5X-SG9X) while one or more of the guns are in operation. The Compliance Response Plan shall be followed whenever a condition exists which should result in a response step. Failure to take response steps, shall be considered a violation of this permit. Monthly inspections shall be performed of the coating emissions from the stack and the presence of overspray on the rooftops and the nearby ground. The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when a noticeable change in overspray emission, or evidence of overspray emission is observed. The Compliance Response Plan shall be followed whenever a condition exists which should result in a response step. Failure to take response steps, shall be considered a violation of this permit. Additional inspections and preventive measures shall be performed as prescribed in the Preventive Maintenance Plan.

(2) Daily visible emission notations of the gel and chop spray gun stacks (ID SG5X-SG9X) exhaust shall be performed during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal. For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time. In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions. A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process. The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed.

These monitoring conditions are necessary because the dry filters for the gel and chop spray gun stacks (ID SG5X-SG9X) must operate properly to ensure compliance with 326 IAC 6-3 (Process Operations) and 326 IAC 2-7 (Part 70).

Air Toxic Emissions

Indiana presently requests applicants to provide information on emissions of the 188 hazardous air pollutants (HAPs) set out in the Clean Air Act Amendments of 1990. These pollutants are either carcinogenic or otherwise considered toxic and are commonly used by industries. They are listed as air toxics on the Office of Air Management (OAM) Part 70 Application Form GSD-08.

(a) This source will emit levels of air toxics greater than those that constitute major source applicability according to Section 112 of the 1990 Clean Air Act Amendments.

(b) See attached calculations for detailed air toxic calculations. (Appendix A, pages 4 and 5 of 7).

Conclusion

The construction and operation of this modification to a shower tub and sink manufacturing operation shall be subject to the conditions of the attached proposed **Significant Source Modification to Part 70 Permit No SSM085-10773-00077**.

Appendix A: Emission Calculations

Company Name: Front Line Manufacturing, Incorporated
Address City IN Zip: County Road 2466 North 200 West, Warsaw, Indiana 46538
Title V SSM: SSM085-10774-00077
Reviewer: Phillip Ritz/EVP
Date: 5/19/1999

Uncontrolled Potential Emissions (tons/year)

	Emissions Generating Activity			
Pollutant	Natural Gas Combustion	gel and chop spray guns (ID SG5 through SG9)	fifteen (15) trimmer saws (ID T2A-T2N and T20)	**TOTAL**
PM	0.09	454.77	15.99	470.85
PM10	0.09	454.77	15.99	470.85
SO2	0.01	0.00	0.00	0.01
NOx	1.20	0.00	0.00	1.20
VOC	0.07	595.88	0.00	595.95
CO	1.01	0.00	0.00	1.01
total HAPs	0.00	594.93	0.00	594.93
worst case single HAP	0.00	(styrene) 580.83	0.00	(styrene) 580.83
Total emissions based on rated capacity at 8,760 hours/year.				

Controlled Potential Emissions (tons/year)

	Emissions Generating Activity			
Pollutant	Natural Gas Combustion	gel and chop spray guns (ID SG5 through SG9)	fifteen (15) trimmer saws (ID T2A-T2N and T20)	**TOTAL**
PM	0.09	22.74	0.80	23.63
PM10	0.09	22.74	0.80	23.63
SO2	0.01	0.00	0.00	0.01
NOx	1.20	0.00	0.00	1.20
VOC	0.07	99.00	0.00	99.07
CO	1.01	0.00	0.00	1.01
total HAPs	0.00	98.84	0.00	98.84
worst case single HAP	0.00	(styrene) 96.5	0.00	(styrene) 96.5
Total emissions based on rated capacity at 8,760 hours/year, after control.				

Appendix A: Emissions Calculations
Reinforced Plastics and Composites
Booth SG5

Company Name: Front Line Manufacturing, Incorporated
Address City IN Zip: County Road 2466 North 200 West, Warsaw, Indiana 46538
Title V SSM: SSM085-10774-00077
Reviewer: Phillip Ritz/EVP
Date: 5/19/1999

SG5 Open Molding Operations

Material	Density (lb/gal)	Emission Factor% Styrene Monomer/VOC	VOCs resulting from non-styrene HAPs	Gallons per unit	Units per Hour	Pound VOC per hour	Pounds VOC per day	Tons of VOC* per Year	PM tons per year	Transfer Efficiency
Catalyst										
Hi-Point 90	9.26	0.00	0.04	0.03	12.50	0.12	2.97	0.54	0.65	95.00%
Gel Resin										
Polydyne Gel Coat	9.85	0.15	0.00	1.61	12.50	29.17	700.14	127.78	37.07	95.00%
Mold Release										
Omniwax #1461	7.26	0.00	0.98	0.01	12.50	1.07	25.61	4.67	0.00	95.00%
					Totals:	**30.36**	**728.73**	**132.99**	**37.73**	

SG6 Open Molding Operations

Catalyst										
Hi-Point 90	9.26	0.00	0.04	0.03	12.50	0.12	2.97	0.54	0.65	95.00%
Gel Resin										
Polydyne Gel Coat	9.85	0.15	0.00	1.61	12.50	29.17	700.14	127.78	37.07	95.00%
Mold Release										
Omniwax #1461	7.26	0.00	0.98	0.01	12.50	1.07	25.61	4.67	0.00	95.00%
					Totals:	**30.36**	**728.73**	**132.99**	**37.73**	

METHODOLOGY

All other processes utilize spray layup application methods with transfer efficiencies of 75%.

Potential VOC Pounds per Hour =Density (lb/gal)* Weight % Monomer * Gal of Material (gal/unit) * Maximum (unit/hr)

Potential VOC Pounds per Day =Density (lb/gal)* Weight % Monomer * Gal of Material (gal/unit) * Maximum (unit/hr) * (24 hrs / 1 day)

Potential VOC Tons per Year = Density (lb/gal)* Weight % Monomer * Gal of Material (gal/unit) * Maximum (unit/hr) * (8760 hr/yr) * (1 ton / 2000 lbs)

Particulate Potential Tons per Year = (units/hour) * (gal/unit) * (lbs/gal) * (1 - Weight % Volatiles) * (1 - Transfer efficiency) * (8760 hr/yr) * (1 ton / 2000 lbs)

Total = Sum of all worst case coatings and solvents used

Emission Factor Styrene Monomer(%) = calculated % Styrene flash off from CFA Emission Calculations

Emission Factor VOC(%) = weight % VOC from MSDS (used on coatings w/o styrene)

Appendix A: Emissions Calculations
Reinforced Plastics and Composites
Booth SG5

Company Name: Front Line Manufacturing, Incorporated
Address City IN Zip: County Road 2466 North 200 West, Warsaw, Indiana 46538
Title V SSM: SSM085-10774-00077
Reviewer: Phillip Ritz/EVP
Date: 5/19/1999

SG7 Chop Spray (Open Molding Operations)

Material	Density (lb/gal)	Emission Factor% Styrene Monomer/VOC	Emission Factor% Styrene Monomer/VOC	Gallons per unit	Units per Hour	Pound VOC per hour	Pounds VOC per day	Tons of VOC* per Year	PM tons per year	Transfer Efficiency
Catalyst										
Hi-Point 90	9.26	0.00	0.04	0.11	8.33	0.35	8.44	1.54	1.85	95.00%
Neat Resin										
Unsaturated Polyester Resin	9.00	0.04	0.00	7.92	8.33	24.75	594.12	108.43	124.59	95.00%
					Totals:	**25.11**	**602.55**	**109.97**	**126.44**	

SG8 Chop Spray (Open Molding Operations)

Catalyst										
Hi-Point 90	9.26	0.00	0.04	0.11	8.33	0.35	8.44	1.54	1.85	95.00%
Neat Resin										
Unsaturated Polyester Resin	9.00	0.04	0.00	7.92	8.33	24.75	594.12	108.43	124.59	95.00%
					Totals:	**25.11**	**602.55**	**109.97**	**126.44**	

SG9 Chop Spray (Open Molding Operations)

Catalyst										
Hi-Point 90	9.26	0.00	0.04	0.11	8.33	0.35	8.44	1.54	1.85	95.00%
Neat Resin										
Unsaturated Polyester Resin	9.00	0.04	0.00	7.92	8.33	24.75	594.12	108.43	124.59	95.00%
					Totals:	**25.11**	**602.55**	**109.97**	**126.44**	
					Grand Totals:	**136.05**	**3265.11**	**595.88**	**454.77**	

Federal Potential Emissions (controlled):

	Material Usage Limitation (%)	Control Efficiency VOC	Control Efficiency PM	Controlled VOC Pounds per Hour	Controlled VOC Pounds per Day	Controlled VOC Tons per Year	Controlled PM tons per Year
Total Federal Potential Emissions:	**83.39%**	0.00%	**95.00%**	**22.60**	**542.47**	**99.00**	**22.74**

METHODOLOGY

All other processes utilize spray layup application methods with transfer efficiencies of 75%.
Potential VOC Pounds per Hour =Density (lb/gal)* Weight % Monomer * Gal of Material (gal/unit) * Maximum (unit/hr)
Potential VOC Pounds per Day =Density (lb/gal)* Weight % Monomer * Gal of Material (gal/unit) * Maximum (unit/hr) * (24 hrs / 1 day)
Potential VOC Tons per Year = Density (lb/gal)* Weight % Monomer * Gal of Material (gal/unit) * Maximum (unit/hr) * (8760 hr/yr) * (1 ton / 2000 lbs)
Particulate Potential Tons per Year = (units/hour) * (gal/unit) * (lbs/gal) * (1 - Weight % Volatiles) * (1 - Transfer efficiency) * (8760 hr/yr) * (1 ton / 2000 lbs)
Total = Sum of all worst case coatings and solvents used
Emission Factor Styrene Monomer(%) = calculated % Styrene flash off from CFA Emission Calculations
Emission Factor VOC(%) = weight % VOC from MSDS (used on coatings w/o styrene)

Appendix A: Emission Calculations
HAP Emission Calculations for Booth S1

Company Name: Front Line Manufacturing, Incorporated
Address City IN Zip: County Road 2466 North 200 West, Warsaw, Indiana 46538
Title V SSM: SSM085-10774-00077
Reviewer: Phillip Ritz/EVP
Date: 5/19/1999

SG5 Open Molding Operations

Material	Density (Lb/Gal)	Gallons of Material (gal/unit)	Maximum (unit/hour)	Weight % Styrene	Weight % MEKP	Weight % Toluene	Weight % Dimethyl Phthalate	Styrene (ton/yr)	MEKP (ton/yr)	Toluene (ton/yr)	Dimethyl Phthalate (ton/yr)
Catalyst											
Hi-Point 90	9.26	0.03	12.50		1.79%		2.20%	0.00	0.24	0.00	0.30
Gel Resin											
Polydyne Gel Coat	9.85	1.61	12.50	14.70%				127.78	0.00	0.00	0.00
Mold Release											
Omniwax #1461	7.26	0.01	12.50			88.00%		0.00	0.00	4.20	0.00

SG6 Open Molding Operations

Catalyst											
Hi-Point 90	9.26	0.03	12.50		1.79%		2.20%	0.00	0.24	0.00	0.30
Gel Resin											
Polydyne Gel Coat	9.85	1.61	12.50	14.70%				127.78	0.00	0.00	0.00
Mold Release											
Omniwax #1461	7.26	0.01	12.50			88.00%		0.00	0.00	4.20	0.00

METHODOLOGY

HAPS emission rate (tons/yr) = Density (lb/gal) * Gal of Material (gal/unit) * Maximum (unit/hr) * Weight % HAP * 8760 hrs/yr * 1 ton/2000 lbs

Emission Factor Styrene Monomer(%) = calculated % Styrene flash off from CFA Emission Calculations

Emission Factor VOC(%) = weight % VOC from MSDS (used on coatings w/o styrene)

*Coating application is mutually exclusive, therefore the worst case HAP is used for calculations.

Appendix A: Emission Calculations
HAP Emission Calculations for Booth S2

Company Name: Front Line Manufacturing, Incorporated
Address City IN Zip: County Road 2466 North 200 West, Warsaw, Indiana 46538
Title V SSM: SSM085-10774-00077
Reviewer: Phillip Ritz/EVP
Date: 5/19/1999

Booth 2 Open Molding Operations

Material	Density (Lb/Gal)	Gallons of Material (gal/unit)	Maximum (unit/hour)	Weight % Styrene	Weight % MEKP	Weight % Toluene	Weight % Dimethyl Phthalate	Styrene (ton/yr)	MEKP (ton/yr)	Toluene (ton/yr)	Dimethyl Phthalate (ton/yr)
SG7 Chop Spray (Open Molding Operations)											
Catalyst											
Hi-Point 90	9.26	0.11	8.33		1.79%		2.20%	0.00	0.69	0.00	0.85
Neat Resin											
Unsaturated Polyester Resin	9.00	7.92	8.33	4.17%				108.43	0.00	0.00	0.00
SG8 Chop Spray (Open Molding Operations)											
Catalyst											
Hi-Point 90	9.26	0.11	8.33		1.79%		2.20%	0.00	0.69	0.00	0.85
Neat Resin											
Unsaturated Polyester Resin	9.00	7.92	8.33	4.17%				108.43	0.00	0.00	0.00
SG9 Chop Spray (Open Molding Operations)											
Catalyst											
Hi-Point 90	9.26	0.11	8.33		1.79%		2.20%	0.00	0.69	0.00	0.85
Neat Resin											
Unsaturated Polyester Resin	9.00	7.92	8.33	4.17%				108.43	0.00	0.00	0.00
Total State Potential Emissions for Source:								**580.83**	**2.56**	**8.39**	**3.14**

594.93

	Material Usage Limitation (%)	Limited Emissions Styrene	Limited Emissions MEKP	Limited Emissions Toluene	Limited Emissions Dimethyl Phthalate
Total Limited Emissions for Source:	**83.39%**	**96.50**	**0.43**	**1.39**	**0.52**

METHODOLOGY

HAPS emission rate (tons/yr) = Density (lb/gal) * Gal of Material (gal/unit) * Maximum (unit/hr) * Weight % HAP * 8760 hrs/yr * 1 ton/2000 lbs **98.84**

Emission Factor Styrene Monomer(%) = calculated % Styrene flash off from CFA Emission Calculations

Emission Factor VOC(%) = weight % VOC from MSDS (used on coatings w/o styrene)

*Coating application is mutually exclusive, therefore the worst case HAP is used for calculations.

Appendix A: Emission Calculations
Natural Gas Combustion
MM Btu/hr 0.3 - < 100

Company Name: Front Line Manufacturing, Incorporated
Address City IN Zip: County Road 2466 North 200 West, Warsaw, Indiana 46538
Title V SSM: SSM085-10774-00077
Reviewer: Phillip Ritz/EVP
Date: 5/19/1999

Heat Input Capacity MMBtu/hr	Potential Throughput MMCF/yr
2.8	24.1

Heat Input Capacity includes:
one (1) 2.75 mmBtu/hr air makeup unit, identifed as air makeup

	Pollutant					
	PM	PM10	SO2	NOx	VOC	CO
Emission Factor in lb/MMCF	7.6	7.6	0.6	100.0	5.5	84.0
Potential Emission in tons/yr	0.09	0.09	0.01	1.20	0.07	1.01

Methodology:
MMBtu = 1,000,000 Btu
MMCF = 1,000,000 Cubic Feet of Gas
Emission Factors for NOx: uncontrolled = 100, Low Nox Burner = 50, Flue gas recirculation = 32
All PM is assumed to be less than 1.0 micrometer in diameter. Therefore, the PM emission factors may be used to estimate PM10, PM2.5, and PM1 emissions.
Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu
Emission Factors from AP 42, Chapter 1.4, Tables 1.4-1 and 1.4-2, SCC #1-01-006-02, #1-02-006-02, #1-03-006-02, #1-03-006-03
Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

Appendix A: Emission Calculations
Woodworking & Plastics Machining

Company Name: Front Line Manufacturing, Incorporated
Address City IN Zip: County Road 2466 North 200 West, Warsaw, Indiana 46538
Title V SSM: SSM085-10774-00077
Reviewer: Phillip Ritz/EVP
Date: 5/19/1999

Facilities are to be 15 hand-held electrical or pneumatic trimming saws, manufacturer and model numbers to be determined.

NEW TRIMMING: GRAIN LOADING calculated @ 3,500 cfm

3,500	cfm
3.65	lbs/hr particulate generated
425.833333	grains per minute
0.12166667	gr/dscf

Facility ID T2A ,T2B ,T2C ,T2D ,T2E ,T2F ,T2G ,T2H ,T2I ,T2J ,T2K ,T2L ,T2M ,T2N ,T2O

3.65	lbs pm generated per hour
1.00	capture assumed
0.95	efficiency of dry filter
0.18	lbs emitted per hour
0.01	lbs emitted per unit
102.50	units per day
12.8125	units per hour
15.987	tons MAXIMUM uncontrolled emissions per year
0.79935	tons MAXIMUM controlled emissions per year

Appendix A: Emission Calculations

Company Name: Front Line Manufacturing, Incorporated
Address City IN Zip: County Road 2466 North 200 West, Warsaw, Indiana 46538
Title V SSM: SSM085-10774-00077
Reviewer: Phillip Ritz/EVP
Date: 5/19/1999

Uncontrolled Potential Emissions (tons/year)

	Emissions Generating Activity			
Pollutant	Natural Gas Combustion	gel and chop spray guns (ID SG5 through SG9)	fifteen (15) trimmer saws (ID T2A-T2N and T20)	**TOTAL**
PM	0.09	454.77	15.99	470.85
PM10	0.09	454.77	15.99	470.85
SO2	0.01	0.00	0.00	0.01
NOx	1.20	0.00	0.00	1.20
VOC	0.07	595.88	0.00	595.95
CO	1.01	0.00	0.00	1.01
total HAPs	0.00	594.93	0.00	594.93
worst case single HAP	0.00	(styrene) 580.83	0.00	(styrene) 580.83
Total emissions based on rated capacity at 8,760 hours/year.				

Controlled Potential Emissions (tons/year)

	Emissions Generating Activity			
Pollutant	Natural Gas Combustion	gel and chop spray guns (ID SG5 through SG9)	fifteen (15) trimmer saws (ID T2A-T2N and T20)	**TOTAL**
PM	0.09	22.74	0.80	23.63
PM10	0.09	22.74	0.80	23.63
SO2	0.01	0.00	0.00	0.01
NOx	1.20	0.00	0.00	1.20
VOC	0.07	99.00	0.00	99.07
CO	1.01	0.00	0.00	1.01
total HAPs	0.00	98.84	0.00	98.84
worst case single HAP	0.00	(styrene) 96.5	0.00	(styrene) 96.5
Total emissions based on rated capacity at 8,760 hours/year, after control.				

Appendix A: Emissions Calculations
Reinforced Plastics and Composites
Booth SG5

Company Name: Front Line Manufacturing, Incorporated
Address City IN Zip: County Road 2466 North 200 West, Warsaw, Indiana 46538
Title V SSM: SSM085-10774-00077
Reviewer: Phillip Ritz/EVP
Date: 5/19/1999

SG5 Open Molding Operations

Material	Density (lb/gal)	Emission Factor% Styrene Monomer/VOC	VOCs resulting from non-styrene HAPs	Gallons per unit	Units per Hour	Pound VOC per hour	Pounds VOC per day	Tons of VOC* per Year	PM tons per year	Transfer Efficiency
Catalyst										
Hi-Point 90	9.26	0.00	0.04	0.03	12.50	0.12	2.97	0.54	0.65	95.00%
Gel Resin										
Polydyne Gel Coat	9.85	0.15	0.00	1.61	12.50	29.17	700.14	127.78	37.07	95.00%
Mold Release										
Omniwax #1461	7.26	0.00	0.98	0.01	12.50	1.07	25.61	4.67	0.00	95.00%
					Totals:	**30.36**	**728.73**	**132.99**	**37.73**	

SG6 Open Molding Operations

Catalyst										
Hi-Point 90	9.26	0.00	0.04	0.03	12.50	0.12	2.97	0.54	0.65	95.00%
Gel Resin										
Polydyne Gel Coat	9.85	0.15	0.00	1.61	12.50	29.17	700.14	127.78	37.07	95.00%
Mold Release										
Omniwax #1461	7.26	0.00	0.98	0.01	12.50	1.07	25.61	4.67	0.00	95.00%
					Totals:	**30.36**	**728.73**	**132.99**	**37.73**	

METHODOLOGY

All other processes utilize spray layup application methods with transfer efficiencies of 75%.

Potential VOC Pounds per Hour =Density (lb/gal)* Weight % Monomer * Gal of Material (gal/unit) * Maximum (unit/hr)

Potential VOC Pounds per Day =Density (lb/gal)* Weight % Monomer * Gal of Material (gal/unit) * Maximum (unit/hr) * (24 hrs / 1 day)

Potential VOC Tons per Year = Density (lb/gal)* Weight % Monomer * Gal of Material (gal/unit) * Maximum (unit/hr) * (8760 hr/yr) * (1 ton / 2000 lbs)

Particulate Potential Tons per Year = (units/hour) * (gal/unit) * (lbs/gal) * (1 - Weight % Volatiles) * (1 - Transfer efficiency) * (8760 hr/yr) * (1 ton / 2000 lbs)

Total = Sum of all worst case coatings and solvents used

Emission Factor Styrene Monomer(%) = calculated % Styrene flash off from CFA Emission Calculations

Emission Factor VOC(%) = weight % VOC from MSDS (used on coatings w/o styrene)

Appendix A: Emissions Calculations
Reinforced Plastics and Composites
Booth SG5

Company Name: Front Line Manufacturing, Incorporated
Address City IN Zip: County Road 2466 North 200 West, Warsaw, Indiana 46538
Title V SSM: SSM085-10774-00077
Reviewer: Phillip Ritz/EVP
Date: 5/19/1999

SG7 Chop Spray (Open Molding Operations)

Material	Density (lb/gal)	Emission Factor% Styrene Monomer/VOC	Emission Factor% Styrene Monomer/VOC	Gallons per unit	Units per Hour	Pound VOC per hour	Pounds VOC per day	Tons of VOC* per Year	PM tons per year	Transfer Efficiency
Catalyst										
Hi-Point 90	9.26	0.00	0.04	0.11	8.33	0.35	8.44	1.54	1.85	95.00%
Neat Resin										
Unsaturated Polyester Resin	9.00	0.04	0.00	7.92	8.33	24.75	594.12	108.43	124.59	95.00%
					Totals:	**25.11**	**602.55**	**109.97**	**126.44**	

SG8 Chop Spray (Open Molding Operations)

Catalyst										
Hi-Point 90	9.26	0.00	0.04	0.11	8.33	0.35	8.44	1.54	1.85	95.00%
Neat Resin										
Unsaturated Polyester Resin	9.00	0.04	0.00	7.92	8.33	24.75	594.12	108.43	124.59	95.00%
					Totals:	**25.11**	**602.55**	**109.97**	**126.44**	

SG9 Chop Spray (Open Molding Operations)

Catalyst										
Hi-Point 90	9.26	0.00	0.04	0.11	8.33	0.35	8.44	1.54	1.85	95.00%
Neat Resin										
Unsaturated Polyester Resin	9.00	0.04	0.00	7.92	8.33	24.75	594.12	108.43	124.59	95.00%
					Totals:	**25.11**	**602.55**	**109.97**	**126.44**	
					Grand Totals:	**136.05**	**3265.11**	**595.88**	**454.77**	

Federal Potential Emissions (controlled):

	Material Usage Limitation (%)	Control Efficiency VOC	Control Efficiency PM	Controlled VOC Pounds per Hour	Controlled VOC Pounds per Day	Controlled VOC Tons per Year	Controlled PM tons per Year
Total Federal Potential Emissions:	**83.39%**	0.00%	**95.00%**	**22.60**	**542.47**	**99.00**	**22.74**

METHODOLOGY

All other processes utilize spray layup application methods with transfer efficiencies of 75%.
Potential VOC Pounds per Hour =Density (lb/gal)* Weight % Monomer * Gal of Material (gal/unit) * Maximum (unit/hr)
Potential VOC Pounds per Day =Density (lb/gal)* Weight % Monomer * Gal of Material (gal/unit) * Maximum (unit/hr) * (24 hrs / 1 day)
Potential VOC Tons per Year = Density (lb/gal)* Weight % Monomer * Gal of Material (gal/unit) * Maximum (unit/hr) * (8760 hr/yr) * (1 ton / 2000 lbs)
Particulate Potential Tons per Year = (units/hour) * (gal/unit) * (lbs/gal) * (1 - Weight % Volatiles) * (1 - Transfer efficiency) * (8760 hr/yr) * (1 ton / 2000 lbs)
Total = Sum of all worst case coatings and solvents used
Emission Factor Styrene Monomer(%) = calculated % Styrene flash off from CFA Emission Calculations
Emission Factor VOC(%) = weight % VOC from MSDS (used on coatings w/o styrene)

Appendix A: Emission Calculations
HAP Emission Calculations for Booth S1

Company Name: Front Line Manufacturing, Incorporated
Address City IN Zip: County Road 2466 North 200 West, Warsaw, Indiana 46538
Title V SSM: SSM085-10774-00077
Reviewer: Phillip Ritz/EVP
Date: 5/19/1999

SG5 Open Molding Operations

Material	Density (Lb/Gal)	Gallons of Material (gal/unit)	Maximum (unit/hour)	Weight % Styrene	Weight % MEKP	Weight % Toluene	Weight % Dimethyl Phthalate	Styrene (ton/yr)	MEKP (ton/yr)	Toluene (ton/yr)	Dimethyl Phthalate (ton/yr)
Catalyst											
Hi-Point 90	9.26	0.03	12.50		1.79%		2.20%	0.00	0.24	0.00	0.30
Gel Resin											
Polydyne Gel Coat	9.85	1.61	12.50	14.70%				127.78	0.00	0.00	0.00
Mold Release											
Omniwax #1461	7.26	0.01	12.50			88.00%		0.00	0.00	4.20	0.00

SG6 Open Molding Operations

Catalyst											
Hi-Point 90	9.26	0.03	12.50		1.79%		2.20%	0.00	0.24	0.00	0.30
Gel Resin											
Polydyne Gel Coat	9.85	1.61	12.50	14.70%				127.78	0.00	0.00	0.00
Mold Release											
Omniwax #1461	7.26	0.01	12.50			88.00%		0.00	0.00	4.20	0.00

METHODOLOGY

HAPS emission rate (tons/yr) = Density (lb/gal) * Gal of Material (gal/unit) * Maximum (unit/hr) * Weight % HAP * 8760 hrs/yr * 1 ton/2000 lbs

Emission Factor Styrene Monomer(%) = calculated % Styrene flash off from CFA Emission Calculations

Emission Factor VOC(%) = weight % VOC from MSDS (used on coatings w/o styrene)

*Coating application is mutually exclusive, therefore the worst case HAP is used for calculations.

Appendix A: Emission Calculations
HAP Emission Calculations for Booth S2

Company Name: Front Line Manufacturing, Incorporated
Address City IN Zip: County Road 2466 North 200 West, Warsaw, Indiana 46538
Title V SSM: SSM085-10774-00077
Reviewer: Phillip Ritz/EVP
Date: 5/19/1999

Booth 2 Open Molding Operations

Material	Density (Lb/Gal)	Gallons of Material (gal/unit)	Maximum (unit/hour)	Weight % Styrene	Weight % MEKP	Weight % Toluene	Weight % Dimethyl Phthalate	Styrene (ton/yr)	MEKP (ton/yr)	Toluene (ton/yr)	Dimethyl Phthalate (ton/yr)
SG7 Chop Spray (Open Molding Operations)											
Catalyst											
Hi-Point 90	9.26	0.11	8.33		1.79%		2.20%	0.00	0.69	0.00	0.85
Neat Resin											
Unsaturated Polyester Resin	9.00	7.92	8.33	4.17%				108.43	0.00	0.00	0.00
SG8 Chop Spray (Open Molding Operations)											
Catalyst											
Hi-Point 90	9.26	0.11	8.33		1.79%		2.20%	0.00	0.69	0.00	0.85
Neat Resin											
Unsaturated Polyester Resin	9.00	7.92	8.33	4.17%				108.43	0.00	0.00	0.00
SG9 Chop Spray (Open Molding Operations)											
Catalyst											
Hi-Point 90	9.26	0.11	8.33		1.79%		2.20%	0.00	0.69	0.00	0.85
Neat Resin											
Unsaturated Polyester Resin	9.00	7.92	8.33	4.17%				108.43	0.00	0.00	0.00
Total State Potential Emissions for Source:								**580.83**	**2.56**	**8.39**	**3.14**

594.93

	Material Usage Limitation (%)	Limited Emissions Styrene	Limited Emissions MEKP	Limited Emissions Toluene	Limited Emissions Dimethyl Phthalate
Total Limited Emissions for Source:	**83.39%**	**96.50**	**0.43**	**1.39**	**0.52**

METHODOLOGY

HAPS emission rate (tons/yr) = Density (lb/gal) * Gal of Material (gal/unit) * Maximum (unit/hr) * Weight % HAP * 8760 hrs/yr * 1 ton/2000 lbs **98.84**

Emission Factor Styrene Monomer(%) = calculated % Styrene flash off from CFA Emission Calculations

Emission Factor VOC(%) = weight % VOC from MSDS (used on coatings w/o styrene)

*Coating application is mutually exclusive, therefore the worst case HAP is used for calculations.

Appendix A: Emission Calculations
Natural Gas Combustion
MM Btu/hr 0.3 - < 100

Company Name: Front Line Manufacturing, Incorporated
Address City IN Zip: County Road 2466 North 200 West, Warsaw, Indiana 46538
Title V SSM: SSM085-10774-00077
Reviewer: Phillip Ritz/EVP
Date: 5/19/1999

Heat Input Capacity MMBtu/hr	Potential Throughput MMCF/yr
2.8	24.1

Heat Input Capacity includes:
one (1) 2.75 mmBtu/hr air makeup unit, identifed as air makeup

	Pollutant					
	PM	PM10	SO2	NOx	VOC	CO
Emission Factor in lb/MMCF	7.6	7.6	0.6	100.0	5.5	84.0
Potential Emission in tons/yr	0.09	0.09	0.01	1.20	0.07	1.01

Methodology:
MMBtu = 1,000,000 Btu
MMCF = 1,000,000 Cubic Feet of Gas
Emission Factors for NOx: uncontrolled = 100, Low Nox Burner = 50, Flue gas recirculation = 32
All PM is assumed to be less than 1.0 micrometer in diameter. Therefore, the PM emission factors may be used to estimate PM10, PM2.5, and PM1 emissions.
Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu
Emission Factors from AP 42, Chapter 1.4, Tables 1.4-1 and 1.4-2, SCC #1-01-006-02, #1-02-006-02, #1-03-006-02, #1-03-006-03
Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

Appendix A: Emission Calculations
Woodworking & Plastics Machining

Company Name: Front Line Manufacturing, Incorporated
Address City IN Zip: County Road 2466 North 200 West, Warsaw, Indiana 46538
Title V SSM: SSM085-10774-00077
Reviewer: Phillip Ritz/EVP
Date: 5/19/1999

Facilities are to be 15 hand-held electrical or pneumatic trimming saws, manufacturer and model numbers to be determined.

NEW TRIMMING: GRAIN LOADING calculated @ 3,500 cfm

3,500	cfm
3.65	lbs/hr particulate generated
425.833333	grains per minute
0.12166667	gr/dscf

Facility ID T2A ,T2B ,T2C ,T2D ,T2E ,T2F ,T2G ,T2H ,T2I ,T2J ,T2K ,T2L ,T2M ,T2N ,T2O

3.65	lbs pm generated per hour
1.00	capture assumed
0.95	efficiency of dry filter
0.18	lbs emitted per hour
0.01	lbs emitted per unit
102.50	units per day
12.8125	units per hour
15.987	tons MAXIMUM uncontrolled emissions per year
0.79935	tons MAXIMUM controlled emissions per year